EXPLAINING NEW CEO ORIGIN:
FIRM VERSUS INDUSTRY ANTECEDENTS

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We classified newly chosen CEOs’ origins into three categories: intrafirm, intraindustry, and outside-industry, and examined their firm-level and industry-level antecedents. In a sample of 220 CEO successions between 1993 and 1998, intrafirm succession was positively associated with the presence of an heir apparent and the number of nonheir inside directors. Intrainsdustry succession was positively associated with strategic homogeneity among industry firms and a focal firm’s strategic conformity to industry central tendencies.

A major stream of research in extant CEO succession literature explores the antecedents of successor CEOs’ origins, contrasting intrafirm succession to outside-firm succession (Finkelstein & Hambrick, 1996; Kesner & Sebora, 1994). This research provides evidence that intrafirm CEO succession can be explained by firm-level strategic contingencies and internal power struggles. For example, intrafirm CEO succession is positively associated with firm size and prior performance (Dalton & Kesner, 1983; Guthrie & Datta, 1997, 1998) and is also more likely to occur in firms where inside constituencies are powerful (Boeker & Goodstein, 1993; Cannella & Labatkin, 1993).

Extant literature provides valuable insights into the antecedents of intrafirm versus outside-firm CEO succession (Finkelstein & Hambrick, 1996; Kesner & Sebora, 1994). However, when CEOs are chosen from the outside, some come from within the hiring firms’ industries, whereas others are chosen from outside their industries. Very little is known about the antecedents of these choices, because typically the prior research has not distinguished between intrainsdustry and outside-industry successors. This is a crucial gap in literature from a practical as well as a theoretical standpoint. From a practical standpoint, more and more firms in recent years have recruited CEOs from outside their firms and, in several well-publicized cases (like the hiring of Carly Fiorina as Hewlett-Packard’s CEO in 1999), have even hired from outside their industries. In a recent survey of executive hiring practices, Berenthal, Rioux, and Willins (1999) found that 37 percent of the firms in their study filled top executive positions from outside the firms. However, extant empirical work offers little insight into the industry origins of such outsider CEOs.

From a theoretical standpoint, intrainsdustry successors differ from outside-industry successors in several significant ways. First, they embody different managerial skills. Whereas an outside-industry successor has generic skills that may or may not be transferable across industries and firms, an intrainsdustry successor has industry-specific skills that may be readily transferable to firms in the same industry (Castanias & Helfat, 1991). Hence, an intrainsdustry succession may involve less risk associated with leadership change than an outside-industry succession (Harris & Helfat, 1997; Parrino, 1997).

Second, intrainsdustry and outside-industry successions present different opportunities to a firm from an organizational learning perspective. CEO succession is an important mechanism for organizational learning and thus for organizational adaptation (Virany, Tushman, & Romanelli, 1992). Virany and coauthors argued that executive succession can “fundamentally alter the knowledge, skills and interaction processes of the senior management team” [and hence] “improve the team’s ability to recognize and act on changing environmental conditions” (1992: 72). A successor’s previous career path can significantly influence the type of
organizational learning that will occur in the post-
succession period (Miller, 1991). Intraindustry suc-
cession is associated with great opportunity for a
firm to learn from the strategies and practices of
other firms in its industry (Boeker, 1997). In con-
trast, outside-industry succession may enable the
firm to learn about novel strategies, new technolo-
gies, and new markets outside its industry bound-
aries (Howard, 2001).

Third, intraindustry and outside-industry suc-
cessions have different implications for the risk
that a firm’s board of directors bears for its reputa-
tion in the managerial labor market. In general, an
outside-firm succession is associated with greater
information asymmetry between a board and a suc-
cessor than an intraindustry succession, and hence the
outside-firm succession implies greater perform-
ance risk in the postsuccession period (Harris &
Helfat, 1997; Zajac, 1990). However, if the outside
successor subsequently does not live up to expec-
tations, the board may find it easier to justify its
hiring decision if the outsider came from a peer
firm within the focal firm’s industry than if he or
she came from outside the industry (Porac, Wade, &
Pollock, 1999). Hence, a board’s reputation may be
less adversely affected in the case of an intraindu-
stry succession than that of an outside-industry
succession.

The origin of a new CEO has important organiza-
tional implications and, hence, one important mo-
tivation for our study was to understand the cir-
cumstances under which a firm chooses a new
CEO from within itself, from within its industry
(but from outside the firm), and from outside the
industry. Another, related, motivation for our study
stemmed from our basic theoretical premise that
the firm-level antecedents primarily examined in
prior research may be less salient in explaining
variations in the industry origin of CEO successors.
We expected to find that although intraindustry suc-
cession depends on firm-level antecedents, industry-
level antecedents will primarily determine intrain-
dustry succession. To test this premise, we
examined the simultaneous effects of firm and in-
dustry antecedents on the likelihood of intrain-
dustry and intraindustry succession, relative to outside-
industry succession.

THEORY AND HYPOTHESES

The selection of a new CEO can be framed as a
choice made within three distinct managerial labor
markets—the intraindustry, intraindustry, and outside-
industry markets.\(^2\) The intraindustry labor market has
historically been the predominant source for new
CEOs among U.S. firms (Ocasio, 1999; Vancil,
1987) for several reasons. First, firms that promote
from within generate loyalty and boost morale
(Howard, 2001). Second, intraindustry successions cap-
itulate on insiders’ knowledge of their firms and
established social networks (Harris & Helfat, 1997;
Vancil, 1987). Third, firms have better information
about the skills of internal candidates than about
those of external candidates (Harris & Helfat, 1997;
Zajac, 1990). Thus, the possibility of a misfit be-
tween CEO and organization is likely to be mini-
mized. Finally, firms often select inside candidates
because such actions have been institutionalized in
their histories and ensure continuity and stability
(Ocasio, 1999).

However, sometimes firms look outside for new
CEOs either because of a lack of qualified internal
candidates (Howard, 2001) or a need for the new
perspectives, skills, or knowledge that can be
gained from outsiders (Guthrie & Datta, 1997). In
such cases, the intraindustry labor market becomes
an important source for choosing a new CEO for at
least two distinct reasons. First, hiring senior exec-
utives from other firms in their industries is an
important way that firms learn from those other
firms (Boeker, 1997). Hence, other firms in the
same industry are likely to be perceived as salient
sources of supply of executive talent. Second, firms
typically justify their behaviors by the actions of
peer firms within their industries (Porac et al.,
1999). Hiring a new CEO from the industry peer
group may confer legitimacy on a hiring firm be-
cause it signals the market that the firm is attempt-
ing to align itself with the rest of the industry
(Powell, 1988).

Basic economic logic suggests that the supply
and demand conditions within these two manage-
rial labor markets (intraindustry and intraindustry)
should affect CEO selection within the two mar-
kets. Specifically, supply conditions reflect the
availability of qualified candidates in the labor
market, while demand conditions relate to the de-
sirability of candidates from the viewpoint of a
hiring firm. In addition, supply and demand factors
should be specific to a market and hence, different

\(^2\) In both our theory and in our empirical analyses we
treat outside-industry successions as the base group
against which intraindustry and intraindustry successions
are evaluated. It is very difficult to offer a concise theo-
retical treatment of the qualified pool in the outside-
industry labor market within this research note.
managerial labor markets should reflect different supply and demand conditions.

Prior studies suggest that a new CEO is more likely to come from within a firm when the supply of internal candidates is adequate and/or when the strategic context of the firm demands firm-specific skills (Finkelstein & Hambrick, 1996; Kesner & Sebora, 1994). However, few studies in the extant empirical literature have addressed the intraindustry labor market (Finkelstein & Hambrick, 1996: 173). Making a logical extension to the firm-level argument, we expect that a new CEO is more likely to come from within an industry when the supply of within-industry candidates is adequate and/or the strategic context of the firm demands industry-specific skills (Fredrickson, Hambrick, & Baumrin, 1988). Thus, the pool of qualified candidates in an intrafirm labor market can be defined in terms of firm-level supply and demand conditions, and the pool of qualified candidates in the intraindustry labor market can be defined in terms of supply and demand conditions in the industry.

Next we build upon prior empirical research and theories of CEO succession to define the relevant pools of CEO candidates in intrafirm and intraindustry labor markets and use these arguments to develop specific research hypotheses. It is important to note here that our theoretical arguments and the research hypotheses presented below are made under a ceteris paribus assumption of prior performance. Prior research has consistently identified firm performance as a crucial antecedent of CEO origin (Finkelstein & Hambrick, 1996) and hence, in our research design, we explicitly controlled for firm performance.

Defining the Pool in the Intrafirm Market:
Supply and Demand Antecedents

Taking a supply-side perspective, prior studies have often used the overall size of a firm as a proxy for the size of the available pool of candidates. Dalton and Kesner (1983) argued that large firms tend to have intrafirm successions because they have larger internal labor markets and thus can find more internal candidates who appear to have the ability to solve critical organizational contingencies. Consistent with this argument, several studies have found that intrafirm succession is positively associated with firm size (Finkelstein & Hambrick, 1996; Kesner & Sebora, 1994).

However, we draw upon three theoretical perspectives—the executive human capital, agency theory, and power perspectives—to suggest that the actual pool of qualified candidates for the CEO position within a firm is likely to be much smaller than that suggested by the firm’s overall size. First, the executive human capital argument indicates that the requirements of the CEO job are substantially different from those of other organizational positions (Kesner & Sebora, 1994: 329). This is a position with considerable responsibility for overall firm performance and hence, only a small group of executives with experience at the highest levels of a firm are likely to possess the relevant managerial skills and expertise and to be considered serious candidates for this position (Castanias & Helfat, 1991; Ocasio, 1999). A new CEO is charged with challenging strategic mandates, and the learning process can be both time-consuming and stressful unless the candidate has significant prior senior experience within the firm. Second, the power perspective suggests that in order to qualify for consideration, an internal candidate needs an established power base, especially in relation to the incumbent CEO and the board of directors (Ocasio, 1999). Such a power base is often evidenced by holding a formal job title like president/chief operating officer and/or board membership (Ocasio, 1999). The studies by Boeker (1992), Hambrick and Cannella (1993), and Cannella and Shen (2001) provide strong empirical evidence that power and politics can limit the potential of even very senior executives for ascending to the CEO position. Finally, from an agency theory perspective, a candidate is more likely to be considered seriously for the CEO position if the board of his or her firm has relevant information on the candidate’s skills and competencies (Zajac, 1990). Interactions with the board help to reduce the “adverse selection” problem that arises from information asymmetry between a board and a potential successor (Fama, 1980; Fama & Jensen, 1983).

In sum, these theoretical perspectives can be integrated to define an intrafirm pool of qualified candidates as executives who possess managerial experience at the highest levels of their organizations, have established power bases in relation to the incumbent CEOs and/or boards, and the opportunity to demonstrate their competencies to the boards. These criteria are likely to be met by two different sets of internal candidates: heirs apparent and nonheir inside directors.

Of all the possible internal candidates for the position of a firm’s CEO, the heir apparent of the firm is by far the most qualified and powerful contender (Cannella & Lubatkin, 1993; Vancil, 1987). An heir apparent is the executive who holds the most senior formal position in a firm’s hierarchy (below the CEO) and who has the opportunity to access the task of the CEO (Ocasio, 1999). Indeed, there is an implicit contract between an heir appar-
ent and a board (Cennella & Lubatkin, 1993). Promoting an heir apparent to CEO represents a rule-bound behavior, and breaking this contract can signal instability and uncertainty in a succession process (Cennella & Shen, 2001). Given the seriousness of this contract, a firm’s board is likely to have obtained and evaluated information about the competencies of a candidate (the firm’s heir apparent) prior to approving the appointment. This, in turn, means a significant reduction in the information asymmetry between the board and the heir apparent. Although these factors clearly increase the likelihood of an heir apparent’s being promoted, it should be noted that Cennella and Shen (2001) found that nearly one-third of the heirs apparent in their sample were not promoted. Power struggles and politics often determine an heir apparent’s tenure outcome (Cennella & Shen, 2001) and hence, being an heir apparent does not guarantee promotion. These arguments lead to our first research hypothesis:

Hypothesis 1. The presence of an heir apparent will be positively related to the likelihood of intrafirm succession.

The second set of internal candidates for a firm’s CEO position includes senior executives (other than an incumbent CEO and an heir apparent) who are also members of the firm’s board. Vancil (1987) argued in his descriptive study that such executives have opportunities to participate in major strategic decisions as board members. Their titles (typically, they have the title of executive vice president or higher) reflect strategically important positions in their organizations’ hierarchies with significant responsibility for overall organizational performance (Lorsch & MacInver, 1989). The board membership of these executives is both a reflection of their demonstrated competencies (Lorsch & MacInver, 1989) and a formal channel outside board members can use to gain knowledge about the skills and competencies of these candidates (Ocasio, 1999). From a power perspective, inside directors are the mostly likely and viable challengers for a CEO position, and they often play a significant role in the dismissal of an incumbent CEO or in the nonpromotion of an heir apparent (Ocasio, 1994; Sonnenfeld, 1988). Hence, we hypothesize as follows:

Hypothesis 2. The number of nonheir inside directors will be positively related to the likelihood of intrafirm succession.

We turn now to the demand side of our basic economic logic. It is likely that who is considered a desirable candidate (and hence within the qualified pool) is primarily contingent upon the extent to which a firm desires firm-specific skills (Gupta, 1984). We argue that one key demand antecedent that makes internal hiring desirable is prior strategic persistence, or the extent to which a firm’s strategy remains stable over time (Finkelstein & Hambrick, 1990). Strategic contingency theorists have argued that executives with firm-specific skills are considered more desirable when a firm values continuity in strategy and adherence to historically established practices and norms (Guthrie & Datta, 1998). If a firm’s strategy remains stable over time, the critical skills for a successor CEO are familiarity with the firm and expertise in its strategy and operations as well as interpersonal relationships (Finkelstein & Hambrick, 1990; Gupta, 1988). The successor’s divergent or untested ideas about “what might be” rather than “what is” become less valued (Hambrick et al., 1993). In such cases, the successor’s prior experience within the firm becomes a valued managerial asset (Datta & Rajagopalan, 1998). In contrast, if the firm’s strategy changes over time, prior firm-specific skills are likely to be less valuable and may even be inhibitors to change (Hambrick et al., 1993). These arguments lead to the next hypothesis:

Hypothesis 3. Prior strategic persistence by a firm will be positively related to the likelihood of intrafirm succession.

Next, we focus on the supply and demand factors that define the pool of candidates in the intracorporation market and offer hypotheses that relate these factors to the likelihood of intracorporation succession.

Defining the Pool in the Intrafirm Market: Supply and Demand Antecedents

Potentially, a pool of intracorporation candidates for succession to a particular CEO position is quite large, depending on the number of firms within the focal firm’s industry and the number of senior executives within these firms (Fredrickson et al., 1988; Howard, 2001). However, we draw upon institutional theory and executive human capital to argue that the actual pool of qualified candidates within an industry is likely to be restricted to senior executives from similarly sized or larger firms and from strategically homogenous firms.

According to institutional theory, organizations seek to enhance or protect their legitimacy by adopting industry practices or norms (Deephouse, 1996; Scott, 1995). Recruiting a new CEO is a particularly visible event and hence, it provides a significant opportunity to communicate a firm’s intention to conform to or deviate from industry
practices. Studies grounded in institutional theory indicate that firms are more likely to imitate other industry firms that are similar in size to themselves, or larger (Haveman, 1993). In addition to conferring increased legitimacy from an institutional standpoint, the hiring of a senior executive from a similarly sized or larger firm is also appropriate for other reasons. First, organizations of similar size are often similar in terms of structural complexity, often rely on similar environmental resources, and often face similar structural constraints (Hannan & Freeman, 1984). Second, senior executives in relatively large firms also have higher visibility than those in smaller firms, and so they are more likely to attract the attention of firms seeking CEO successors and executive search firms. Finally, in addition to enhancing legitimacy from a symbolic standpoint, successors’ ties to similarly sized and larger firms in an industry also have strategic value for focal firms because such ties expand the latter’s intra-industry network (Geletkanycz & Hambrick, 1997). Thus, the potential pool of firms within its industry from which a focal firm is likely to hire its CEO is most likely restricted to those that are of a similar or larger size. Accordingly, we hypothesize:

Hypothesis 4. The number of similarly sized and larger firms in an industry will be positively related to the likelihood of intra-industry succession.

We can further narrow the pool of qualified intra-industry candidates to senior executives in strategically homogeneous firms by drawing upon arguments from an executive human capital perspective (Castanias & Helfat, 1991). The extent to which an intra-industry candidate can transfer his or her skills to a firm is likely to depend on the extent of industry homogeneity (Parrino, 1997). This is because executives in homogeneous industries better understand the production technologies employed within their industries as well as the product-markets within which the focal firm competes. Hence, although outsiders generally possess less firm-specific human capital than insiders, the magnitude of this difference—and therefore the relative costs of inside and outside succession—is likely to be lower in industries comprised of homogeneous firms than in more heterogeneous industries (Parrino, 1997). In line with this argument, Parrino (1997) found a positive relationship between intra-industry succession and industry performance homogeneity.

However, from an executive human capital perspective, strategic homogeneity among industry firms is a more salient antecedent than performance homogeneity because executive skills have a more direct impact on a firm’s strategy than on its ultimate performance (Finkelstein & Hambrick, 1996). We define strategic homogeneity as the extent to which the strategic resource allocations of different firms within an industry follow the same pattern. When an industry’s firms follow similar strategies, the skills and competencies that senior executives have developed from their prior work experiences with particular strategies are more readily transferable to a focal, CEO-seeking firm (Harris & Helfat, 1997). Hence, there is a potentially larger pool of qualified candidates in the industry labor market. In contrast, when there is significant heterogeneity within an industry, the intra-industry pool cannot be clearly distinguished from the outside-industry pool, and there is no obvious benefit to restricting the pool to intra-industry candidates. Further, our earlier arguments from institutional theory suggest that a firm is likely to choose its CEO from firms that are of similar or larger size than it is. Hence, the more homogeneous these firms are, the larger is the intra-industry pool of qualified candidates for the CEO position.

Hypothesis 5. Strategic homogeneity among similarly sized and larger firms in an industry will be positively related to the likelihood of intra-industry succession.

Turning to the demand side, we would expect a successor CEO’s industry origin to be influenced by the extent to which the hiring firm values industry-specific skills and experience (Gupta, 1984). We draw upon strategic contingency theory to argue that one key demand antecedent that makes intra-industry hiring desirable is firm strategic conformity, or the extent to which a firm’s strategy adheres to the central tendencies of its industry (Finkelstein & Hambrick, 1990). Firms that adhere to industry central tendencies are more likely to value industry-specific skills than firms that deviate from industry practices (Finkelstein & Hambrick, 1990). In firms whose strategies conform to their industries’ central tendencies, the critical skills for successors are familiar with those industries’ strategies and practices (Gupta, 1988). In contrast, firms with novel and unique strategies that deviate from industry tendencies are more likely to desire successors who have the ability to explore and evaluate a range of competitive behaviors beyond those that most firms in their industries have already adopted (Hambrick et al., 1993). These arguments lead to our final research hypothesis:

Hypothesis 6. Firm strategic conformity to an industry’s central tendencies will be positively
related to the likelihood of intraindustry succession.

METHODS

Sample and Data Collection

The sample for this study was drawn from a population of relatively large (having annual sales revenues greater than $100 million) U.S. manufacturing firms. Selected firms were publicly traded, nondiversified (deriving at least 70 percent of their sales from single four-digit industries as defined by Standard Industrial Classification code), and listed continuously on COMPSTAT between 1993 and 1998. We first identified such firms (768 in all) from COMPSTAT and then identified CEO successions that had occurred within this group during 1993–98 from the on-line Wall Street Journal Index and Standard & Poor’s Executive Compensation databases. The primary sources for data on successor CEOs, departing CEOs, heirs apparent, and nonheir inside directors were the Dun & Bradstreet Reference Book of Corporate Management and Who Is Who in Finance and Industry. From these data sources, we obtained complete information on 220 CEO successions, the final sample for our study. These 220 successions took place within 200 firms, 180 of which experienced only one succession and 20 of which experienced two. T-tests revealed no differences in mean firm size (annual sales) and firm performance (industry-adjusted ROA) between these 200 firms and the broader population of 768 firms from which the final sample was drawn.

Measures

CEO origin. The origin of a new CEO was classified into three categories: intrafirm, intraindustry, and outside-industry. Consistent with recent succession studies, intrafirm succession was defined as one in which an executive with firm tenure of at least two years had been promoted to the CEO position (Cannella & Lubatkin, 1993; Harris & Helfat, 1997; Ocasio, 1999). Similarly, intraindustry succession was defined as one in which the successor CEO had firm tenure of less than two years but had industry tenure of at least two years in the same four-digit industry that the hiring firm was in. Outside-industry succession referred to a succession in which the successor CEO had industry tenure of less than two years in the same four-digit industry. In order to classify the industry origin of a new CEO, we followed the procedure described in Harris and Helfat (1997). We first obtained a new CEO’s work history from the Dun & Bradstreet Reference Book of Corporate Management, proxy statements, and the detailed Wall Street Journal article announcing the hiring. We then ascertained if the CEO had prior work experience of at least two years in the four-digit industry of the hiring firm. Among the 220 successions, there were 132 intrafirm successions, 34 intraindustry successions, and 54 outside-industry successions.

Firm antecedents. Following Cannella and Shen, we identified an heir apparent as “any officer who was the only person in the firm holding the title of president or of COO or both and who was at least five years younger than the incumbent CEO” (2001: 258). A variable, heir apparent, was coded 1 if, in the year preceding succession, there was such an individual in a firm, and 0 otherwise. We also carefully checked the firm tenure of these heirs. Four cases in which a president/COO had firm tenure of less than two years were recoded as having no heir apparent. Number of nonheir inside directors referred to the total number of executives, other than a firm’s current CEO and heir apparent, who were also members of the board of directors. Following Finkelstein and Hambrick (1990), we used six strategic dimensions to create a composite measure of strategic persistence: (1) advertising intensity (advertising divided by sales), (2) research and development intensity (R&D/sales), (3) plant and equipment (P&E) newness (net P&E/gross P&E), (4) nonproduction overhead (selling general, and administrative [SGA] expenses/sales), (5) inventory levels (inventories/sales), and (6) financial leverage (debt/equity). The composite measure was calculated as follows: Treating \( t \) as the succession year, we computed a firm’s presuccession five-year (for \( t - 4 \) through \( t \)) variance \( \sum(t_i - T)/n - 1 \) for each strategic dimension. Next, variance scores for each dimension were standardized by the sample \( \sum(x - \mu) \), and multiplied by \(-1\) to bring the measures in line with the concept of persistence (that is, the absence of strategic variance over time). Finally, the average of the six standardized dimensions yielded an overall measure of strategic persistence. The data were gathered from COMPSTAT.

Industry antecedents. The number of similarly sized and larger firms in an industry was operationally defined as the natural logarithm\(^3\) of the number of firms in a focal firm’s primary industry whose sales in the year prior to succession were equal to

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\(^3\) We used a log transformation because the raw data were significantly skewed. However, when we ran additional analysis based on the raw score instead of the logarithmic measure, results did not change significantly.
or larger than half of the focal firm’s sales (Haveman, 1993: 607–608). This measure takes into account the fact that larger firms in an industry may find fewer qualified candidates for their CEO positions in the intraindustry market than smaller firms will find. Firm size data were obtained from COMPUSTAT. Industry strategic homogeneity measured the extent of similarity in the strategies of these similarly sized and larger firms. We used the same six strategic dimensions described earlier for the measure of strategic homogeneity. Variance within the similarly sized and larger firms for each strategic dimension was computed for the year prior to a succession. Next, variance scores for each dimension were standardized by the sample (\( \bar{x} = 0 \), s.d. = 1), and multiplied by \(-1\) to bring the measures in line with the concept of homogeneity (an absence of strategic variance among firms). Finally, the average of the six standardized dimensions yielded an overall measure of industry strategic homogeneity. We also measured strategic conformity via the same six strategic dimensions, following Finkelstein and Hambrick (1990). This procedure was used: A focal firm’s score on each strategic dimension (for the year prior to succession) was first standardized by its industry and then multiplied by \(-1\) to bring the measure in line with the concept of conformity (an absence of difference from other firms in the industry). The average of the six standardized dimensions yielded an overall measure of strategic conformity. These data were gathered from COMPUSTAT.

Controls. In view of the prior CEO succession literature, we controlled for the following variables: industry concentration, firm size, year of hire, prior firm performance, CEO power, and CEO dismissal. Industry concentration was measured via a Herfindahl index (Datta & Rajagopalan, 1998), and data were obtained from the U.S. Census of Manufacturers volumes published in 1992 and 1997 (since these data are only available at five-year intervals, the year closest to the year of succession was used). Firm size was the natural logarithm of the average sales in the three years prior to succession (Datta & Rajagopalan, 1998), and the data were collected from COMPUSTAT. Year of hire, measured as the year a successor was hired (minus 1900), was intended to capture historical trends in CEO succession (Ocasio, 1994). To measure prior firm performance, we used one accounting-based and one market-based measure. The accounting measure—adjusted ROA—referred to the average of a focal firm’s ROA adjusted by industry ROA for the three years prior to a succession (Datta & Rajagopalan, 1998). Data on firm ROA and industry ROA were collected from COMPUSTAT. Drawing on Cannella and Shen (2001), we calculated the market-based measure, shareholder return, from the Center for Research in Security Prices (CRSP) data tapes for the year prior to succession, as follows: First, we adjusted a firm’s monthly return for the market’s average return to get the firm’s abnormal return. Then, the firm’s monthly abnormal returns were compounded over the year. This measure reflects the returns shareholders have realized at the end of a fiscal year from a $1.00 investment made on the first day of the fiscal year, adjusted by the market’s average return.

Past research has highlighted the importance of CEO power in the CEO succession process and hence, we also controlled for that factor. We derived an index of CEO power for the year prior to a focal succession from the three most widely used measures of CEO power: CEO stockholding, CEO position tenure, and CEO duality (Cannella & Shen, 2001; Zajac & Westphal, 1996). The departing CEO’s stockholdings as a percentage of the firm’s total outstanding stock and his or her tenure as CEO in years were standardized and summed. We then added a dummy variable, CEO duality (coded 1 if an incumbent was also the chair of the board of his or her employing firm, and 0 otherwise), to the composite measure of stockholdings and tenure to derive the overall measure of CEO power. The data were collected from the Dun & Bradstreet Reference Book of Corporate Management and from proxy statements. Finally, because the circumstances under which a succession takes place can also affect the choice of a successor (Cannella & Lubatkin, 1993), we included CEO dismissal, which was coded 1 if the prior CEO was dismissed and 0 otherwise. CEO dismissal was defined as occurring when a departing CEO had terminated his or her service as both the CEO and a director of a firm before the age of 64 for reasons other than health problems (Cannella & Lubatkin, 1993). Supplementary information on CEO dismissal was collected from the Wall Street Journal.

DATA ANALYSIS AND RESULTS

To test our hypotheses, we used multinomial “logit” analyses. We used this methodology to estimate simultaneous logistic regression models with “pairwise” comparisons of intrafirm succession and intraindustry succession against the base category of outside-industry succession (Ocasio & Kim, 1999; Parrino, 1997). Two models were estimated; model 1 included the control variables, and model 2 added the six firm and industry antecedents. Because model 2 included the full set of antecedents, we were able to simultaneously assess
the relative effects of firm-level and industry-level antecedents on the origins of new CEOs.

Table 1 presents the means, standard deviations and zero-order correlations among all study variables. Table 2 presents the multinomial logit estimates for models 1 and 2. Table 2 indicates that the model including hypothesized firm and industry antecedents significantly added to the explained variance in CEO origin when it is compared to the controls-only model ($\Delta \chi^2 = 65.94, p < .001$). Overall, the pattern of results reported in Table 2 is consistent with our study’s underlying theoretical premise, that firm-level antecedents will be significantly related to the likelihood of intrafirm succession and that industry-level antecedents will be significant predictors of intraindustry succession. Consistent with prior studies (Boeker & Goodstein, 1993; Cannella & Lubatkin, 1993; Ocasio, 1999), in our results firm size and pre-succession ROA were positively related to the likelihood of intrafirm succession, and CEO dismissal was negatively related to it.

Two out of the three hypotheses on firm antecedents were strongly supported. Consistent with Hypothesis 1, the presence of an heir apparent increased the likelihood of intrafirm succession ($p < .001$). As predicted by Hypothesis 2, the number of nonheir inside directors also significantly increased the likelihood of intrafirm succession ($p < .01$). However, Hypothesis 3 was marginally supported because the coefficient for the strategic persistence variable was only weakly associated ($p < .10$) with intrafirm succession. Because the bivariate correlation between strategic persistence and intrafirm succession (Table 1) was highly significant ($r = .28, p < .001$), we further explored the reason for the marginally significant regression coefficient. It appears that this correlation may be spurious in that prior firm performance predicted both strategic persistence (firms that do well don’t change their strategies) and intrafirm succession (good performers are more likely to choose insiders). This conjecture is also supported by the significant correlations reported in Table 1 between adjusted ROA and intrafirm origin ($r = .22, p < .001$) and between adjusted ROA and strategic persistence ($r = .15, p < .05$). Hence, when we controlled for prior firm performance in the multinomial logit analysis (model 2 in Table 2), strategic persistence was only marginally significant. It is consistent with this interpretation that in supplementary analyses (not reported here), we found that strategic persistence was a positive, significant ($p < .05$) predictor of intrafirm succession when firm performance was not included.

Two out of the three hypotheses on industry

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**TABLE 1**

Means, Standard Deviations, and Correlations

<table>
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<tr>
<th>Variable</th>
<th>Mean</th>
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<td>13. Similarly sized/larger firms</td>
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* $n = 220$. Coefficients of .13 or larger are significant at $p < .05$. 
<table>
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<th>Intrafirm Origin</th>
<th>Intraindustry Origin</th>
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<tr>
<td>Constant</td>
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<td>0.48* (0.21)</td>
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<td>Adjusted ROA</td>
<td>2.21* (0.98)</td>
<td>0.77 (1.14)</td>
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<td>Shareholder return</td>
<td>0.92 (0.64)</td>
<td>0.06 (0.81)</td>
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<td>CEO dismissal</td>
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<td>-0.69 (0.49)</td>
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<td>CEO power</td>
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<tr>
<td>Firm antecedents</td>
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<tr>
<td>Heir apparent</td>
<td>2.50*** (0.58)</td>
<td>0.19 (0.83)</td>
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<tr>
<td>Nonheir inside directors</td>
<td>0.60* (0.19)</td>
<td>0.19 (0.22)</td>
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<tr>
<td>Strategic persistence</td>
<td>0.83* (0.50)</td>
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<td>Industry antecedents</td>
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<tr>
<td>Similarly sized/larger firms</td>
<td>-0.10 (0.23)</td>
<td>0.54* (0.32)</td>
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<td>Industry strategic homogeneity</td>
<td>-0.77 (0.79)</td>
<td>2.83* (1.41)</td>
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<td>Strategic conformity</td>
<td>0.59 (0.43)</td>
<td>1.10* (0.56)</td>
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Chi-square                      | 48.07***         | 114.01***            |

\* n = 220. The omitted category is outside-industry succession. Standard errors are in parentheses.

\* p < .10
\* p < .05
\* p < .01
\* p < .001

antecedents also received strong support. Strategic homogeneity among similarly sized and larger firms (Hypothesis 5) and a focal firm’s strategic conformity to industry central tendencies (Hypothesis 6) were significant predictors of intraindustry succession (p < .05). However, the number of similarly sized and larger firms (Hypothesis 4) was only marginally associated with the likelihood of intraindustry succession (p < .10). Overall, the pattern of results on industry antecedents suggests that strategic similarity among industry firms and a focal firm’s strategic conformity to industry norms are more salient in defining the potential intraindustry pool of qualified candidates than is the number of similarly sized or larger firms.

**DISCUSSION AND CONCLUSION**

This study incorporated both firm-level and industry-level antecedents and examined intraindustry and intraindustry succession (compared to outside-industry succession) simultaneously. We found strong empirical support for four out of six research hypotheses. First, the likelihood of intraindustry succession was significantly increased by the presence of an heir apparent and the number of nonheir inside directors. Second, the likelihood of intraindustry succession was significantly increased by strategic homogeneity among similarly sized and larger firms in an industry and firm strategic conformity to industry central tendencies. These results support our overall theoretical argument that firm antecedents will predict intraindustry succession but not intraindustry succession and that industry antecedents will predict intraindustry succession but not intraindustry succession. These findings are particularly important because they validate the basic theoretical premise of our study: the intraindustry market is distinct from the intraindustry (but outside-firm) market. Even though a firm is embedded within an industry and as such operates both within the firm and industry markets, our findings indicate that industry-level antecedents do not explain intraindustry succession. Thus, firm-level antecedents are useful in understanding intraindustry versus outside-firm succession, and industry-level antecedents are useful in discriminating between intraindustry and outside-industry succession.

Our study makes several key contributions to the extant literature on CEO succession: First, prior studies generally do not distinguish between CEOs, which come from within the industry of the firm, that hire them from outside, CEOs that come from outside those industries. Hambrook & Ham
brick, 1996). But we clearly distinguish intraindustry succession from outside-industry succession. Our study is among the first to simultaneously address all three origins: intramarket, intraindustry, and outside-industry (Parrino, 1997). Second, the firm-level antecedents that prior research has examined are of limited use in discriminating between different types of outside successes. We drew upon institutional theory (Haveman, 1993), strategic contingency (Gupta, 1984, 1988) and executive human capital (Harris & Helfat, 1997; Parrino, 1997) arguments to identify industry-level antecedents that are theoretically and empirically distinct from firm-level antecedents. Thus, we contribute to a more completely specified model of CEO succession. Third, the supply-demand framework we used to identify differences between intramarket and intraindustry pools of qualified candidates is a simple yet powerful way to conceptualize the boundaries of different labor markets within which executive selection decisions are made. This framework can be extended in future research to examine other types of labor markets as well.

Limitations and Future Research Directions

We would also like to acknowledge several limitations of our study that, in turn, suggest some interesting avenues for future research. First, like most research on CEO succession, our study relied on archival data rather than on direct observations of the process of CEO succession. We were unable to explicitly identify the candidates that boards had actually considered in their new CEO selection decisions. Instead, we used various firm- and industry-level proxies to assess the pools of qualified candidates. While these proxies were grounded in extant theories of CEO succession, field studies that obtain more direct measures through surveys of boards and executive search firms are likely to further refine understanding of how boards identify candidates from both the internal and external labor markets.

Second, our decision to limit the sample to relatively large, nondiversified manufacturing firms, in order to explicitly examine the impact of industry-related antecedents on CEO origin, may limit the generalizability of the findings to other contexts (such as firms that are small, diversified, and/or in a service industry).

Third, future research is needed to explore the role of other firm-level factors that affect the size of the intramarket pool of qualified candidates for a CEO position. We defined the supply pool of intramarket candidates according to the presence of an heir apparent and the number of nonheir inside direc-

tors. However, there may be a significantly larger number of potential internal contenders, depending upon the size of a firm and whether it is structured in a manner that enables the development of high-level managerial talent. For instance, firms that adopt a multidivisional or product structure are more likely to develop many senior managers qualified to assume the CEO position than are firms with functional structures. Although we controlled for firm size, we did not examine the effects of organizational structure on the availability of senior managers who are qualified for the CEO position. Future research that examines the role of organizational structure is likely to further enhance understanding of the size (and quality) of intramarket pools.

Fourth, future research is also needed to expand or modify our supply-demand framework to accommodate salient conditions in other relevant labor markets. For instance, we examined one external labor market (the intramarket labor market), and this was appropriate given that we examined only nondiversified firms. However, industry-based labor market definitions may not be as appropriate for diversified firms that operate in multiple industries. Hence, we need further research in this area that can advance understanding of how firms identify qualified candidates within more diffuse external labor markets.

In conclusion, although past research has by and large ignored the industry origins of new CEOs, our study examined intramarket succession and intraindus-
try succession, relative to outside-industry succession, simultaneously and in relation to firm-level and industry-level supply and demand conditions. We hope that our results will spur additional research that further improves scholars’ understanding of the complex set of issues surrounding CEO origin.

REFERENCES


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**Yan Zhang** ([yanzh@rice.edu](mailto:yanzh@rice.edu)) is an assistant professor in the Jesse H. Jones Graduate School of Management at Rice University. She received her Ph.D. from the University of Southern California. Her research interests include CEO succession, corporate governance, and strategic alliances.

**Nandini Rajagopalan** is an associate professor in the Marshall School of Business at the University of Southern California. Her research focuses on CEO succession, top management compensation, strategic change, and strategic decision processes.

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